

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A circuit switch comprising:
 - a coupler accessing signaling channels to transmit signaling messages;
 - an interpreter producing a signaling configuration upon receiving an order to send a signaling message, wherein a type of signaling channel is selected from the signaling channels accessible to the coupler and the signaling configuration produced depends on the selected type of signaling channel; and
 - a receiver for adding a receive flag to a received signaling message, wherein the order is a predetermined constant character string; and
 - wherein the receive flag is an internal flag of the switch and is not transmitted with the signaling message from the switch.
2. (previously presented): The switch according to claim 1, wherein the coupler further comprises:
 - a detector recognizing whether the received signaling message is addressed to the switch based on a destination of the received signaling message;
 - a processor processing the signaling message when the switch is the destination for the signaling message; and
 - a translator replacing the receive flag with the predetermined character string when the switch is not the destination for the signaling message.

3. (previously presented): A method of sending a signaling message by a circuit switch, the method comprising:

receiving said signaling message in a receiving exchange of said switch and adding a receive flag to said signaling message;

adding to said signaling message a predetermined send order for said signaling message;

interpreting said send order in an interpreter of the switch to produce a signaling configuration of said switch; and

outputting, from the circuit switch, the signaling message with the added predetermined send order and in the produced signaling configuration,

wherein the signaling configuration produced depends on a selected type of signaling channel, and the type of signaling channel is selected from the signaling channels available to the switch,

wherein the receive flag is a specified constant and the predetermined send order is a specified constant character string, and

wherein the receive flag is an internal flag of the switch and is not transmitted with the signaling message from the switch.

4. (previously presented): The method according to claim 3, wherein, to add the predetermined character string to the signaling message:

the destination of said signaling message is tested; and

if a destination of the signaling message is different from said receiving exchange, the flag is replaced by said predetermined character string.

5. (previously presented): The method of claim 3, wherein said interpreter is configured to process at least one of: an IP protocol, a frame relay protocol, an ATM protocol, a switched X25 protocol, a generic modem protocol and a switched B channel protocol.

6. (previously presented): The method of claim 3, wherein said interpreter is one of (a) a microprocessor associated with a program and (b) a working session in a processor running said switch.

7. (previously presented): The switch of claim 1, wherein said interpreter comprises a circuit configured to process at least one of: an IP protocol, a frame relay protocol, an ATM protocol, a switched X25 protocol, a generic modem protocol and a switched B channel protocol.

8. (previously presented): The switch of claim 1, wherein said interpreter comprises one of (a) a microprocessor associated with a program and (b) a working session in a processor running said switch.

9. (previously presented): A circuit switch comprising:
a coupler accessing signaling channels to transmit signaling messages;
an interpreter producing a signaling configuration upon receiving an order to send a signaling message, the signaling configuration produced depends on a type of the signaling channels accessible to the coupler; and
a receiver for adding a receive flag for internal use only to a received signaling message, wherein the order is a predetermined constant character string,
wherein the coupler comprises:
a detector recognizing whether the received signaling message is addressed to the switch,

a processor processing the signaling message when the switch is a destination for the signaling message, and

a translator replacing the receive flag with the predetermined character string when the switch is not the destination for the signaling message, and

wherein the coupler has a plurality of interfaces, wherein each of said interfaces provides access to one of said channels and wherein when a plurality of signaling channels are available to transmit said signaling message, a next available signaling channel is selected in a chronological order and the signaling message is configured to produce the signaling configuration for the next available signaling channel.

10. (previously presented): The switch according to claim 9, wherein the predetermined constant character string remains unchanged regardless of a type of the available signaling channels.

11. (previously presented): The switch of claim 2, wherein when the signaling message is received by the switch, the receiver adds a receive flag to the signaling message and the detector checks the signaling message for the receive flag to determine whether the switch is a designated destination for the signaling message.

12. (previously presented): The switch of claim 2, wherein, when the detector recognizes that the received signaling message is not addressed to the switch based on the destination, the detector forwards the received signaling message to the translator, and wherein, when the translator receives the signaling message from the detector, the translator replaces the receive flag with the predetermined constant character string regardless of the destination for the signaling message.

13. (previously presented): The switch according to claim 12, wherein when the switch is not the destination, the translator replaces the receive flag with the predetermined constant character string regardless of the signaling configuration of said signaling message.

14. (previously presented): The method according to claim 3, wherein, when the switch adds the send order to the signaling message, the switch selects the type of signaling channel from the signaling channels available at the switch for transmitting the signaling message, and the interpreter of the switch produces the signaling configuration for the signaling message based on the selected type of signaling channel.

15. (previously presented): A circuit switch comprising:
a coupler accessing signaling channels of different types to transmit signaling messages;
an interpreter producing a signaling configuration upon receiving an order to send a signaling message, wherein the signaling configuration produced for the signaling message depends on a selected type of signaling channel, and wherein the type of signaling channel is selected from different types of the signaling channels available at the coupler to transmit signaling messages; and

a receiver for adding a receive flag for internal use only to a received signaling message, wherein the order is a predetermined constant character string, and
wherein the selection of the type of signaling channel for producing the signaling configuration is based on a predetermined criteria.

16. (previously presented): The switch according to claim 15, wherein the coupler has a plurality of interfaces, wherein each of said interfaces provides access to one of said channels, and wherein when a plurality of signaling channels are available to transmit said signaling message, an available signaling channel is selected based on the predetermined criteria and the

signaling message is configured to produce the signaling configuration for the available signaling channel.

17. (currently amended): A computer program embodied on a microprocessor, the program having instructions, ~~tangible computer readable medium storing instructions, said the~~ instructions comprising:

accessing signaling channels by a coupler to transmit signaling messages;
producing a signaling configuration upon receiving an order to send a signaling message, wherein a type of signaling channel is selected from the signaling channels accessible to the coupler and the signaling configuration produced depends on the selected type of signaling channel;
adding a receive flag to a received signaling message; and
outputting the signaling message with the produced signaling configuration, wherein the order is a predetermined constant character string; and
wherein the receive flag is an internal flag of the switch and is not transmitted with the signaling message from the switch.

18. (currently amended): A computer program embodied on a microprocessor, the program having instructions, ~~tangible computer readable medium storing instructions, said the~~ instructions comprising:

receiving a signaling message in a receiving exchange of a switch and adding a receive flag to said signaling message;
adding to said signaling message a predetermined send order for said signaling message;
interpreting said send order in an interpreter of the switch to produce a signaling configuration of said switch; and

outputting, from the circuit switch, the signaling message with the added predetermined send order and in the produced signaling configuration,

wherein the signaling configuration produced depends on a selected type of signaling channel, and the type of signaling channel is selected from the signaling channels available to the switch,

wherein the receive flag is a specified constant and the predetermined send order is a specified constant character string, and

wherein the receive flag is an internal flag of the switch and is not transmitted with the signaling message from the switch.

19. (currently amended): A computer program embodied on a microprocessor, the program having instructions, ~~tangible computer readable medium storing instructions, said the~~ instructions comprising:

accessing signaling channels by a coupler to transmit signaling messages;

producing a signaling configuration upon receiving an order to send a signaling message, wherein the signaling configuration produced depends on a type of the signaling channels accessible to the coupler; and

adding a receive flag to a received signaling message,

wherein the order is a predetermined constant character string,

wherein said accessing of the signaling channels comprises:

recognizing whether the received signaling message is addressed to a switch,

processing the signaling message when the switch is a destination for the signaling message, and

replacing the receive flag with the predetermined character string when the switch is not the destination for the signaling message; and

wherein the receive flag is an internal flag of the switch and is not transmitted with the signaling message from the switch.

20. (previously presented): The instructions according to claim 19, wherein the coupler comprises a plurality of interfaces, wherein each of said interfaces provides access to one of said channels, and wherein, when the plurality of signaling channels are available to transmit said signaling message, a next available signaling channel is selected in a chronological order and the signaling message is configured to produce the signaling configuration for the next available signaling channel.

21. (previously presented): The instructions according to claim 17, wherein the selection of the type of signaling channel for producing the signaling configuration is based on a predetermined criteria.

22. (previously presented): The switch according to claim 1, wherein the receive flag is replaced when the switch is not the destination of the signaling message.

23. (previously presented): The switch according to claim 1, wherein the switch only internally uses the receive flag of the received signaling message.

24. (canceled).

25. (previously presented): The switch according to claim 1, wherein the receive flag is an instruction instructing a processor of the switch to process the signaling message.

26. (new): The switch according to claim 1 wherein the predetermined constant character string is the same for all telephone exchanges.

27. (new): The switch according to claim 1, wherein the predetermined constant character string is a predetermined syntax specific to the signaling channel.

28. (new): The switch according to claim 1, wherein the receive flag is added to the signaling message upon conveyance of the signaling message to a second interpreter.

29. (new): The switch according to claim 1, wherein the predetermined character string received by the interpreter is always a same character string.

30. (new): The switch according to claim 1, wherein a physical interface of the signaling channels comprise at least one of an IP protocol, an asynchronous transfer mode (ATM) protocol, a switched X25 protocol, a generic modem protocol, a Q interface signaling (QSIG) protocol and a switched B channel protocol.